

Integrating Psychological and Pharmacological Treatment of Dually Diagnosed Patients

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INTRODUCTION

In the past decade, there has been substantially increased interest in patients with coexisting psychiatric illness and substance use disorders (Meyer 1986a; Minkoff and Drake 1991; Mirin 1984). Two main factors have contributed to the interest in this subject. First, studies of both primary substance abusers (Mirin et al. 1991; Ross et al. 1988; Rounsaville et al. 1991) and patients with primary psychiatric disorders (Caton et al. 1989; Drake and Wallach 1989; McLellan and Druley 1977) in clinical settings have revealed substantial rates of co-morbidity with the other disorder. Moreover, results of the National Institute of Mental Health Epidemiological Catchment Area study (Regier et al. 1990) confirmed that the frequent association between substance use disorders and psychiatric illness is not due to the bias inherent in studying clinical populations, but occurs in the general population at a significantly higher rate than would be expected by chance alone.

A second reason for the interest in these so-called "dually diagnosed" patients is the fact that research conducted in the early 1980s (McLellan et al. 1983) revealed that substance abusers with high levels of psychiatric severity (regardless of the exact nature of the specific coexisting psychiatric disorder) had poor treatment outcomes. In a series of studies by McLellan (1986, pp. 97-139), the level of psychiatric severity was the most robust predictor of treatment outcome in their population of alcohol and drug-dependent patients. Moreover, certain forms of traditional drug abuse treatment, such as the confrontational approach utilized in residential therapeutic communities (TCs), were found to be particularly ill-suited for patients with coexisting psychiatric illness, as demonstrated by the finding that such patients who were treated in TCs had worse outcomes with longer treatment.

The combined findings of high rates of co-morbidity and a growing recognition of the ineffectiveness of traditional forms of substance abuse

treatment for dually diagnosed patients has led clinicians and researchers in recent years to (a) characterize more clearly the relationship between substance abuse and psychiatric disorders, and (b) search for effective approaches to the treatment of this patient population.

THE RELATIONSHIP BETWEEN SUBSTANCE ABUSE AND PSYCHOPATHOLOGY

In treating a patient with a substance use disorder and coexisting psychiatric illness, it is important to understand the potential relationship between the patient's two disorders. Meyer (1986b) has described six different ways in which substance abuse and psychopathology may interrelate: (a) Axis I or Axis II disorders may act as risk factors for substance use disorders, (b) psychopathology may affect the course of a substance use disorder, (c) psychiatric symptoms may develop in the course of chronic intoxication, (d) chronic substance use may lead to the development of psychiatric disorders that do not remit despite cessation of substance use, (e) substance use and psychiatric symptoms may become meaningfully linked over time, and (f) the two disorders may coexist without being related to each other.

In addition to the multiple potential relationships between substance use disorders and psychiatric illness, it is important to recognize the multiplicity of clinical presentations that can be subsumed by the term "dually diagnosed" patient (Weiss et al. 1992a). For example, the nature, length, and severity of psychopathology and of the substance use disorder may vary widely. Dually diagnosed patients thus include a broad range of individuals, including patients with chronic severe mental illness and relatively mild substance use disorders, as well as patients with severe substance dependence and mild psychopathology, e.g., a simple phobia that is unrelated to the substance use. Moreover, even patients with the same two disorders, e.g., alcohol dependence and depression, may have different severity patterns based on a number of factors, including which disorder occurred initially (i.e., which disorder was "primary"). For example, Weissman and colleagues (1977) noted that patients with secondary depression and primary substance use disorder had less severe depressive symptoms than patients with primary mood disorder and secondary substance use disorder. This heterogeneity in patients who are dually diagnosed underscores the need to develop a variety of treatment approaches when working with this population.

GENERAL PRINCIPLES IN TREATING DUALY DIAGNOSED PATIENTS

A number of studies (Kosten et al. 1987; McLellan et al. 1981) have shown that although patients with substance use disorders may have a wide range of problems associated with their addiction, these problems (including psychiatric problems) are not necessarily caused by their addictive disorder, and therefore do not necessarily improve merely as a result of achieving abstinence. Therefore, there has been increasing recognition that patients with coexisting substance use disorders and psychiatric illness need to receive treatment for both disorders, as well as for associated problems such as vocational, legal, medical, and interpersonal difficulties (McLellan et al. 1992, pp. 231-252). Although there are differences of opinion regarding which specific techniques to utilize in dual diagnosis treatment, several stages have commonly been described in the treatment of these patients: crisis intervention, medical and psychiatric stabilization, engagement, motivation or "persuasion" of the patient to seek substance abuse treatment, asking the patient to make a commitment to pursue active treatment, and relapse prevention (Fariello and Scheidt 1989; Kofoed and Keys 1988; Minkoff 1989; Ridgely 1991, pp. 29-42). Since both psychiatric illnesses (particularly those of greater severity) and addictive disorders are frequently accompanied by minimization or denial of symptoms, overcoming this resistance to treatment (which is frequently related to feelings of shame, stigma, and hopelessness) is an important early step in the treatment process.

There has been some controversy over whether the treatment of dually diagnosed patients should occur in an "integrated" or a "sequential" program (Minkoff 1989). Integrated treatment programs, which provide simultaneous substance abuse and psychiatric treatment, have recently gained favor (Minkoff 1989; Ries and Ellingson 1990), although the authors are aware of no studies that have clearly demonstrated the superiority of this approach over sequential treatment, in which dually diagnosed patients receive episodes of substance abuse treatment and psychiatric treatment in sequence (in either order, depending on the patient, program, or response to treatment).

Despite some fundamental differences in the integrated versus sequential models, one similarity between the approaches is the general use of pharmacotherapy to primarily treat the patient's psychiatric disorder (Siris 1990), with the implicit hope that improvement in psychiatric symptoms

will (a) help make a patient more accessible to psychosocial treatment for substance abuse, and (b) reduce the patient's vulnerability to relapse to substance use by diminishing symptoms such as psychosis, depression, or anxiety. Indeed, one of the problems with some of the early studies of antidepressant treatment of alcoholic patients was related to this implicit assumption. Indeed, some such studies failed to measure changes in both depression and drinking behavior as outcome measures (Ciraulo and Jaffe 1981). One of the advances in more recent clinical and research approaches to this topic has been the clear understanding that the treatment of dually diagnosed patients requires specific attention to both disorders, and measurement of outcome in both domains.

POTENTIAL EFFECTS OF COMBINING PSYCHOTHERAPY WITH PHARMACOTHERAPY

The integration of psychotherapeutic and pharmacologic approaches to psychiatric illnesses other than substance abuse has been the subject of a great deal of research (Beitman and Klerman 1991; Karasu 1982; Sarwer-Foner 1983, pp. 165-180). Klerman (1991, pp. 3-19) has outlined a number of potential interactional effects between pharmacologic treatment and psychotherapy. He has divided these into both positive and negative effects; the potential effects of pharmacotherapy on psychotherapy are listed in table 1.

Klerman (1991, pp. 3-19) also has described the potential beneficial and detrimental effects of psychotherapy on psychopharmacologic treatment. First, some individuals may hold the belief that since psychotropic drug treatment is designed to correct an underlying metabolic or biochemical imbalance or dysfunction, then adding psychotherapy (while not necessarily harmful) would represent an unnecessary investment in time, energy, and expense. Moreover, it is possible that exploratory psychotherapy, particularly when undertaken early in the treatment process, may disrupt early defenses and undo some of the healing and "sealing over" that is facilitated by the use of medications. It is important to note that these potential objections to psychotherapy are theoretical and not based on empirical studies that demonstrate the worsening of patients when psychotherapy is added to their pharmacotherapeutic regimen. Theoretical benefits to the addition of psychotherapy to medication treatment include (a) the facilitation of medication compliance by helping the patient to further understand the nature of his or her illness and

TABLE 1. *Potential positive and negative effects of pharmacologic treatment on psychotherapy.*

<u>Positive Effects</u>	
1.	Medications facilitate accessibility to psychotherapy.
2.	Medications influence the ego-psychological functions (cognitive functioning, attention, verbal skills, concentration) required for participation in psychotherapy.
3.	Medications may promote abreaction.
<u>Negative Effects</u>	
1.	Reduction of symptoms may lead patients to stop psychotherapy.
2.	Medications may undercut defenses.
3.	For patients who value psychotherapy, the use of medications may be seen as a failure on their part.

enhancing motivation for positive change; and (b) the correction of associated difficulties such as interpersonal problems and poor self-esteem, which may occur as a result of having a psychiatric illness. Patients with substance use disorders, even in the absence of associated psychopathology, are frequently noncompliant with medication regimens and suffer from poor self-esteem, shame, interpersonal difficulties, and a variety of other associated problems. It therefore could be posited that psychotherapeutic interventions with dually diagnosed patients, who experience these difficulties in a more profound way as the result of having more than one illness, would serve to both help improve compliance and to assist in the rehabilitative process. Since ensuring medication compliance is one of the primary treatment goals in working with psychiatric patients, and since dually diagnosed patients tend to have poorer medication compliance than either patients with substance use disorders alone or psychiatric illness alone (Drake et al. 1989), addressing this issue is critical.

TREATMENT OUTCOME STUDIES WITH Dually DIAGNOSED PATIENTS

Despite evidence from studies of both substance abusers and other psychiatric patients that a combination of psychotherapy and

pharmacotherapy is more effective than either alone, there have been virtually no studies of this subject in dually disordered patients. Rather, most treatment studies of patients with substance use disorders and coexisting mood or anxiety disorders have thus far involved trials of medications that are primarily designed to treat the coexisting psychiatric illness, with the hope that by carefully identifying and treating coexisting psychiatric disorders in substance abusers, the outcome of their substance use disorders can be improved as well. Studies of patients with psychotic and substance use disorders have, on the other hand, primarily focused on psychosocial strategies that integrate the treatment of the two disorders; the medications used are generally held constant and are typically those medications ordinarily prescribed for the treatment of psychosis.

DEPRESSION

A number of studies have examined the treatment of depressed substance abusers with antidepressants (Weiss and Mirin 1989). Despite the aforementioned methodological flaws of early antidepressant studies, more recent research has suggested the potential benefit of this treatment approach, at least for improving mood. Nunes and colleagues (1993) studied the efficacy of imipramine in patients with primary depression and alcoholism. They treated 60 such patients in a 12-week open-label trial; the 35 patients (58 percent) who were judged to be responders during this initial period (i.e., they had substantial improvement in both mood and drinking behavior), were then offered the opportunity to enter a double-blind, placebo-controlled, 6-month discontinuation trial. Twenty-six patients entered this phase of the study, 23 of whom completed the trial. Four of 13 patients (31 percent) relapsed on imipramine, as compared with 7 of 10 (70 percent) who relapsed on placebo ($p = 0.09$). The authors noted that in a subgroup of patients, imipramine had a more powerful effect on mood than on drinking. Moreover, patients with coexisting panic disorder appeared to have a more robust response to imipramine than did patients with depression alone.

A small study of desipramine for patients with depression secondary to alcoholism also suggested its potential utility. Mason and colleagues (1992) compared 11 patients on desipramine with 10 patients on placebo in a 6-month random assignment trial and found that patients treated with desipramine had significantly more sober days and significantly fewer depressive symptoms than patients who were given placebo.

Thus, recent studies of antidepressant treatment of coexisting depression and alcoholism suggest the possibility of a positive response, although the major benefit of this treatment approach may be the reduction of depressive symptoms. Although this is intrinsically helpful, mood improvement is not necessarily associated with a corresponding reduction in drinking. These studies have generally been hampered by small sample sizes and a number of confounding variables (e.g., the mixture of patients with major depression and dysthymia, primary alcoholism and primary depression, and patients with and without coexisting panic disorder), all of which render clear interpretation of these data difficult.

Studies of antidepressants in depressed opioid addicts receiving methadone maintenance treatment have been plagued by analogous methodological problems, and have thus yielded similarly modest results. In most such studies, depression was diagnosed on the basis of a current assessment of depressive symptoms rather than a lifetime clinical historical assessment. Moreover, virtually all of these studies have had small sample sizes, thus increasing the possibility of a type II error (i.e., accepting a false-negative result as true) in the interpretation of results. As with the studies of depressed alcoholics, the effect of antidepressants on mood has been more robust than the effect on drug use (Weiss and Mirin 1989). In a recent study of imipramine in 17 methadone maintenance patients with either primary or chronic depression, 9 (53 percent) improved on measures of both mood and drug use after being treated with imipramine for a period of time ranging from 6 weeks to 11 months (Nunes et al. 1991). However, patients with dysthymia and major depression were both included, and the potential confounding effect of coexisting panic disorder in some patients may have affected these results. Moreover, this was an open-label study, and previous work with this population has shown the potential importance of a response to either a placebo or the extra attention and psychosocial treatment given to research subjects (Kleber et al. 1983).

Ziedonis and Kosten (1992, p. 365) conducted a comparative study of amantadine, desipramine, and placebo in 20 depressed and 74 nondepressed cocaine-abusing methadone maintenance patients; all patients also received relapse prevention treatment. The depressed patients who were treated with placebo had a significantly worse treatment outcome than the nondepressed group. However, the depressed patients who were treated with medication reported significantly less cocaine use than the depressed patients who were given placebo. Thus, these data suggest that relapse prevention treatment alone is not

particularly effective for depressed, cocaine-abusing methadone maintenance patients. However, a combination of relapse prevention treatment and medication may be beneficial for this population.

In sum, while there are some encouraging findings regarding the potential efficacy of antidepressants in substance abusers with coexisting depression, methodological difficulties involved in performing these studies have limited the generalizability of their results. Moreover, the most powerful effect of antidepressants in these patients appears (not surprisingly) to be a reduction in depressive symptoms. Unfortunately, while this may be associated with a corresponding reduction in substance use in some patients, this is not universally true. This appears to be an area in which the interaction between psychotherapeutic interventions and pharmacotherapies could be very important and should be studied. For example, it would be important to know which patients exhibit improvement in their mood symptoms and are thus able to reduce or stop their substance use, and which patients are not. It is possible, for instance, that factors that influence the likelihood of improvement in substance use are independent of the nature and/or severity of the patient's coexisting mood disorder. Conversely, it would be important to study patients who do not respond to an antidepressant with mood improvement, but who are able to stop their drug use anyway; such patients may be responding more powerfully to a psychosocial intervention.

BIPOLAR DISORDER

Studies of pharmacologic treatment of patients with substance abuse and bipolar disorder have yielded mixed results. Although an early small study by Gawin and Kleber (1984) found that lithium helped cocaine abusers with cyclothymic or bipolar disorder, a subsequent study by Nunes and colleagues (1990) showed that lithium did not help to reduce cocaine use in patients with cocaine dependence and bipolar spectrum disorder. These studies involved only 5 and 10 patients respectively, and are thus limited by their increased likelihood of generating a type II error. The authors are aware of no research on the effect of integrating psychological and pharmacologic approaches to the treatment of patients with bipolar disorder and substance abuse.

Although Goodwin and Jamison (1990) report that there are no specific guidelines for the treatment of patients with coexisting drug dependence

and bipolar disorder, they postulate that clinical care for these patients should follow the same general guidelines for bipolar patients with alcohol dependence. They specify that bipolar patients with or without alcohol use disorders need to be informed about their increased morbidity risk if they drink alcohol. Specifically, such patients need to be told that (1) alcohol has additive and sometimes synergistic effects with lithium, which may affect judgment and driving; (2) lithium can alter the nature of alcohol intoxication; (3) alcohol can affect an individual's ability to comply with a prescribed medication regimen; (4) alcohol can alter sleep patterns, which can exacerbate or precipitate mania or mixed states; (5) alcohol can induce mood changes in susceptible individuals; and (6) patients with mixed states are especially vulnerable to decreased treatment response if they drink alcohol.

Himmelhoch and colleagues (1983) have written that patients with co-occurring bipolar disorder and alcohol dependence are likely to need more frequent outpatient visits, an increased number of brief hospitalizations, family and group therapy, and other strategies to mobilize a social network. They posit that inpatient treatment programs that are organized to treat both disorders concurrently are also useful for these patients. Although patients with bipolar and substance use disorders sometimes benefit from attending self-help groups such as Alcoholics Anonymous and Narcotics Anonymous, such patients may need to be forewarned that certain self-help group members may not understand their need for prescribed medications such as lithium. Thus, their need for the medication must be particularly emphasized by the physician.

ANXIETY DISORDERS

Several studies (Kleinman et al. 1990; Nunes et al. 1989; Rounsaville et al. 1991) have revealed that a substantial minority of patients with substance use disorders also suffer from coexisting anxiety disorders. Quitkin and colleagues (1972) published an early report on successful imipramine treatment of a small group of patients with coexisting substance abuse and panic disorder; both their drinking behavior and their panic attacks improved. Since then, however, the treatment of patients with these coexisting disorders has received relatively little attention. Two studies of patients with substance use disorders and generalized anxiety disorder revealed that treatment with buspirone improved patients' levels of anxiety. However, drinking behavior was not

significantly improved in the study by Tollefson and colleagues (1992), in which 51 outpatients were randomly assigned to a 24-week trial of either buspirone or placebo; substance use was not measured as an outcome variable in a study of 60 patients with coexisting anxiety and substance abuse, reported by Olivera and colleagues (1990). The interaction between psychosocial treatment and pharmacologic treatment was not discussed in either of these reports.

The use of benzodiazepines in the treatment of patients with coexisting substance use disorders and anxiety disorders has long been the subject of controversy. Although some authors (Annitto and Dackis 1990) argue that the ongoing use of benzodiazepines in this population is contraindicated, others (Adinoff 1992; Ciraulo et al. 1988; Lydiard 1990) have argued that a subgroup of patients who do not respond to other psychosocial or pharmacologic treatments may be treated successfully with benzodiazepines without abusing them. Indeed, Adinoff (1992) recently described a series of seven alcohol-dependent patients who had been prescribed benzodiazepines for several years while maintaining substantial periods of abstinence from alcohol and not developing evidence of benzodiazepine abuse. Adinoff (1992) cautioned that these patients are unusual, and that developing double-blind studies to further delineate the characteristics of benzodiazepine responders may be impractical. However, such reports point out the critical importance of developing specific psychosocial treatment strategies that may help patients in a high-risk group (e.g., patients with substance use disorders) to be able to tolerate treatment with a pharmacologic agent, e.g., a benzodiazepine, that might otherwise not be prescribed.

PSYCHOTIC DISORDERS

Much of the literature on the treatment of dually diagnosed patients has focused on patients with substance use disorders and chronic psychotic illness (Minkoff and Drake 1991; Pepper et al. 1981; Rosenthal et al. 1992a). However, unlike studies of patients with mood disorders, research on this population has focused primarily on psychosocial approaches (Hellerstein and Meehan 1987; Kofoed et al. 1986; Rosenthal et al. 1992b). Indeed, the authors are aware of only one study of this population that specifically investigated the effects of a medication on substance use in a population of patients with schizophrenia. Ziedonis and colleagues (1992) conducted a 12-week, open-label study of 27 outpatients with schizophrenia who were abusing cocaine. Twelve

patients received desipramine plus antipsychotic agents, whereas 15 patients received antipsychotic medications alone. All patients participated in a Dual Diagnosis Relapse Prevention program, which integrates psychiatric social skills training with relapse prevention techniques traditionally used in substance abuse programs. Patients receiving desipramine in this context had a rate of cocaine-positive urine screens that was similar to that of the patients not receiving desipramine during the first 2 months of treatment. However, in the third and final month of the study, patients given desipramine and antipsychotics had significantly fewer cocaine-positive urines than did the patients receiving antipsychotics alone (10 percent versus 56 percent, $p < .001$). Moreover, the researchers pointed out that 70 percent of the patients in this study completed the 12-week treatment program, as compared to a 27 percent completion rate among their patients without coexisting chronic mental illness. Although treatment retention was somewhat greater in the group receiving desipramine (83 percent versus 60 percent), this difference was not statistically significant. These data therefore suggest that the Dual Diagnosis Relapse Prevention program may have been largely responsible for this high completion rate.

Other psychosocial treatment strategies with chronically psychotic substance abusers have also shown some promise. Most of these approaches emphasize the importance of integrating aspects of substance abuse and psychiatric treatment both theoretically (Minkoff 1989) and geographically (Rosenthal et al. 1992*b*). Integrated treatment for these patients may include psychotropic medications, supportive psychotherapy, peer group support of sobriety, psychoeducation, drug abuse counseling, self-help groups, case management, family support, and occupational therapy (Rosenthal et al. 1992*b*). Drake and colleagues (1993) have emphasized the importance of training mental health professionals regarding substance use issues as a means of providing integrated treatment. It is important to adapt standard mental health and substance abuse treatment approaches to fit the specific needs of dually diagnosed psychotic patients. For example, integrated treatment may differ from traditional substance abuse treatment insofar as it views abstinence as a long-term treatment goal rather than as a short-term treatment requirement, since patients with psychotic illnesses may have more frequent relapses and may be initially difficult to engage (Carey 1989; Rosenthal et al. 1992*b*). Adaptation of treatment techniques for dually diagnosed psychotic patients also includes prescription and monitoring of psychotropic medications that are mindful of the patients' substance dependence (Carey 1989); a realization that while some

patients may benefit from self-help group attendance, the increased frequency of paranoid ideation in this population may make self-help groups counterproductive for some; and decreased use of confrontation in group and individual treatment, because of the difficulty that chronically psychotic patients generally experience with this approach (Kofoed and Keys 1988; Rosenthal 1992*b*).

Integrated treatment models have been described for both inpatient, outpatient, and day hospital settings. For example, Minkoff (1989) has described an integrated treatment program for hospitalized substance-abusing psychotic patients that utilizes the principles of combined treatment described above. This dual diagnosis inpatient unit is designed to simultaneously stabilize both psychiatric and substance use disorders, engage the patient in both forms of treatment, and provide education and referrals for prolonged stabilization and rehabilitation. However, outcome data from such studies are limited. Ries and Ellingson (1990) have described an integrated model of dual diagnosis treatment in an inpatient setting, but have published pilot (albeit encouraging) data on only 17 patients at 1-month followup. Kofoed and Keys (1988) reported on a group therapy intervention for dually diagnosed patients admitted to a general psychiatric unit; the group was co-led by a staff member from the substance abuse program and a staff member from the psychiatric unit. The authors compared 109 patients on the unit that had the dual diagnosis group with 109 patients from a similar inpatient unit in the same hospital that had no dual diagnosis group. They found that the unit with the group more frequently developed discharge plans that included substance abuse treatment. However, the patients were not followed up beyond discharge.

Although a number of outpatient programs for this population also have been described, these, too, have presented relatively little outcome data. Drake and colleagues (1993) recently reported 4-year outcome data from an integrated outpatient program for patients diagnosed with both schizophrenia and alcohol dependence. Of 18 patients followed at 4 years, 61 percent had achieved stable remission from alcohol dependence. Alfs and McClellan (1992) designed an 8-week day hospital program for dually diagnosed patients and found that fewer patients completed this program (66 percent) than completed the regular day hospital program (77 percent), although the relapse rate among those in the dual diagnosis program (33 percent) was lower than anticipated. Fariello and Scheidt (1989) reported on a citywide case management program that was implemented in San Francisco for substance abusing chronically

psychotic patients, but outcome results for those patients are not available. Rosenthal and colleagues (1992a, 1992b) have implemented a 4-year pilot program of weekly outpatient group treatment for substance-abusing psychotic patients. Patients from a dual diagnosis inpatient unit are randomly assigned either to the dual diagnosis outpatient group at discharge or to traditional separate mental health and substance abuse treatment modalities. Although descriptive data for the 30 enrolled patients have been published (Rosenthal et al. 1992a, 1992b), outcome data are not yet available. However, the authors reported an earlier pilot study of 10 patients with schizophrenia and substance dependence who attended a weekly outpatient dual diagnosis group, and they found a decreased rate of rehospitalization for these patients during the year following enrollment in the group (Hellerstein and Meehan 1987). Kofoed and colleagues (1986) have described a pilot program with 32 patients enrolled in a dual diagnosis outpatient group and have reported that although treatment retention was only 34 percent at 3 months, it remained stable at this rate at 24 months followup.

Despite the promising early reports on the treatment of chronically mentally ill substance abusers, the authors are aware of no published studies that have reported data comparing different models of treatment and their relative efficacy in these patients; specifically, no studies that have compared the effect of two different psychosocial interventions on the effectiveness of a psychopharmacologic treatment approach in this population. Clearly, one reason for this is the lack of research on the effect of medications alone for these patients. The early positive findings from the study of cocaine-abusing schizophrenics by Ziedonis and colleagues (1992) suggest that the investigation of the effect of psychosocial treatment on this process is worthy of further study.

SUMMARY AND RECOMMENDATIONS

Despite the high rate of co-morbidity of substance use disorders and other psychiatric disorders, the research literature on the treatment of these dually diagnosed patients remains relatively sparse. Much of what is written about the treatment of these patients is anecdotal, theoretical, descriptive, or uncontrolled; most empirical studies with these patients have involved small numbers of patients, whose heterogeneity has often made interpretation of data very difficult. Controversies in the field over diagnostic methodology, e.g., how to diagnose coexisting psychiatric

disorders in substance abusers (Weiss et al. 1992b), has only served to further hamper the advance of knowledge in this field.

Among the treatment studies in dually diagnosed patients that have been performed, virtually none have examined the interaction between psychological and pharmacological treatment approaches. The use of medications with these patients has generally focused on treatment of the psychiatric disorder, fueled by the hope that this will improve outcome in the coexisting substance use disorder. For the most part, this hope has been incompletely fulfilled, as most such studies demonstrate more improvement in psychiatric symptomatology than in substance use. Although comprehensive psychosocial approaches to patients with coexisting substance use disorders and psychotic illness have proved promising, these findings can only be regarded as preliminary at this time.

The discrepancy between the improvement in psychiatric symptoms and substance use highlights the potential importance of the development of specific behavioral or psychotherapeutic treatment modalities to treat these dually diagnosed patients.

It is known, for example, that the treatment of carefully diagnosed anxiety, mood, and psychotic disorders with appropriate medications helps those disorders. It also is becoming clearer that the pharmacologic treatment of patients with these disorders plus a substance use disorder in the absence of a specific psychosocial treatment program designed for this population is not optimally effective in treating the coexisting substance use disorder. Rather, some combination treatment, similar to the promising data of Ziedonis and colleagues (1992), who integrated Dual Diagnosis Relapse Prevention treatment with desipramine for cocaine-abusing schizophrenic patients, is needed in the treatment of other dually diagnosed patients. In developing such psychological therapies, it is important to recognize the heterogeneity of dually diagnosed patients (Weiss et al. 1992a), and to not necessarily assume that a dual diagnosis psychosocial treatment that is successful for chronically psychotic patients also will be useful for patients with panic disorder, dysthymia, personality disorders, or other psychiatric illnesses. Rather, research is needed in the development of specific psychosocial treatment techniques for specific subgroups of dually diagnosed patients in order to enhance the known benefits of pharmacotherapy and improve overall treatment outcome in this population.

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